AMENDMENTS IN THE SPECIFICATION:

Please replace the paragraph on page 6, line 15, with the following paragraph:

In the first place, a structure of the apparatus for detecting biological information according to an embodiment will be explained using ~~FIG. 1~~ FIGS. 1A and 1B.

Please replace the paragraph on page 6, line 18, with the following paragraph:

As shown in FIG. ~~1(a)~~ 1A, an apparatus for detecting biological information 10 of the embodiment includes a control wheel 1, electrodes 4, and an AC differential amplifier 6.

Please replace the paragraph on page 7, line 8, with the following paragraph:

Next, an electric equivalent circuit of a structure shown in FIG. ~~1(a)~~ 1A will be explained using FIG. ~~1(a)~~ 1A and FIG. ~~1(b)~~ 1B. In an equivalent circuit shown in FIG. ~~1(b)~~ 1B, reference signs Va1 and Va2 denote potential that are generated in both left hand and right hands according to pulsation of a heart (Va1 and Va2 will be hereinafter referred to as an initial potential Va). On the other hand, reference signs R1 and R2 shown in FIG. ~~1(a)~~ 1A denote values of resistances between the electrodes 41 and 42 and the amplifier 6. R1 indicates a resistance from a position where a hand 51 of the driver is in contact with the electrode 41 of the control wheel 1 to the amplifier 6 (R1 and R2 will be hereinafter referred to as an electrode-amplifier resistance R). Here, the electrode-amplifier resistance R is a resistance depending upon a material of the electrodes 41 and 42, a distance from the amplifier 6 to the electrodes 41 and 42, lengths from positions where the hands of the driver are in contact with the electrodes 41 and 42 to ends of the electrodes 41 and 42, and the like. The electrode-amplifier resistance R will be described in detail later.

Please replace the paragraph on page 16, line 18, with the following paragraph:

In order to obtain such a structure, for example, as shown in FIG. ~~2(a)~~ 2A, the conductive resin layer 45 is formed as the electrodes 41 and 42 on the entire lower surface area not facing the driver. And the electrode 41 on the right side and the electrode 42 on the left side are not in contact with each other. Note that ~~FIG. 2. is~~ FIGS. 2A, 2B and 2C represent a diagram showing portions where electrodes are formed in the steering wheel 2 of the control wheel 1.

Please replace the paragraph on page 17, line 20, with the following paragraph:

Next, operations of the apparatus for detecting biological information 10 will be explained using FIGS. ~~1~~ 1A to 3.

Please replace the paragraph on page 22, line 11, with the following paragraph:

Moreover, the member with which the subject of biological information comes into contact may take a form comprising a controller used for controlling at least one of an automobile, a ship, and an airplane, and an auxiliary contact piece that is constituted to assist the subject when the subject controlling the vehicle using this controller comes into contact with the auxiliary contact piece. This form will be explained using apparatuses for detecting biological information 11 and 12 shown in FIGS. 4 and 5. Note that, in FIGS. 4 and 5, members having the

same functions as those of the members shown in FIG. ~~1(a)~~ 1A are denoted by the same reference numerals and signs, and an explanation of the members will be omitted.

Please replace the paragraph on page 26, line 2 with the following paragraph:

Note that, in the embodiments of the apparatus for detecting biological information shown in FIGS. 4 and 5, since a signal of biological information obtained from one of the controller and the auxiliary contact piece is amplified in the amplifier, an equivalent circuit of the apparatus for detecting biological information is the same as that show in ~~1(b)~~ 1B. In addition, the left hand 52 is put on the steering wheel 1 and the side brake piece 7 in FIG. 4, and the left hand 52 is put on the steering wheel 1 and the armrest piece 8 in FIG. 5. However, these figures are for convenience of explanation. Actually, the left hand 52 is put on any one of the steering wheel 1, the side brake piece 7, and the armrest piece 8 or is put on none of the steering wheel 1, the side brake piece 7, and the armrest piece 8.

Please replace the paragraph on page 26, line 16, with the following paragraph:

In the above-described embodiments of the apparatus for detecting biological information, the electrodes 41 and 42 are explained as electrodes comprising the conductive resin layer 45 provided in the control wheel 1. However, the electrodes 41 and 42 are not limited to this and may be any electrodes as long a the electrodes use a material having the predetermined volume resistivity and have the predetermined area of contact with the hands 51 and 52 of the subject of biological information. More specifically, as shown in FIGS. ~~2(b)~~ 2B and ~~2(c)~~ 2C, the

steering 2 itself of the control wheel 1 may be an electrode 46 formed of a material having a volume resistivity of 25 Ω cm or less. A position for forming the electrode 46 is not specifically limited. The electrode 46 may be provided only in parts of the steering wheel 2 as shown in FIG. ~~2(b)~~ 2B or may be provided to on the entire periphery of the steering wheel 2 as shown in FIG. ~~2(c)~~ 2C. In addition, even in the case in which the electrode 46 is provided in parts of the steering wheel 2, positions are not specifically limited. In this way, the form of the electrodes 41 and 42 is not specifically limited and may be any form as long as the electrodes 41 and 42 can provide the above-described resistance R and electrode impedances r and C.

Please replace the paragraph on page 28, line 19, with the following paragraph:

First, an electrocardiographic complex in the case in which the electrode-amplifier resistance R is set to 5 kΩ or less and the electrode impedances r and C are set to 0.4 kΩ is shown in FIG. ~~6(a)~~ 6A. In this case, a sum of the electrode-amplifier resistance R and the electrode impedances r and C is at least 1/100 or less of the input impedance Z of the amplifier 6. In addition, the electrode-amplifier resistance R and the electrode impedances r and C are 1/200 or less of the input impedance Z of the amplifier 6, respectively.

Please replace the paragraph on page 29, line 3, with the following paragraph:

Next, an electrocardiographic complex in the case in which the electrode-amplifier resistance R is set to 100 kΩ and the electrode impedances r and C are set to 0.4 kΩ is shown in FIG. ~~6(b)~~ 6B. The electrode-amplifier resistance R is large compared with that defined in the

above-described embodiments. In this case, a sum of the electrode-amplifier resistance R and the electrode impedances r and C is 1/100 or more of the input impedance Z of the amplifier 6.

Please replace the paragraph on page 29, line 12, with the following paragraph:

Moreover, an electrocardiographic complex in the case in which the electrode-amplifier resistance R is set to 5 kΩ or less and the electrode impedances r and C are set to 10 kΩ is shown in FIG. ~~6(c)~~ 6C. The electrode impedances r and C are large compared with those defined in the above-described embodiments. In this case, a sum of the electrode-amplifier resistance R and the electrode impedances r and C is 1/100 or more of the input impedance Z of the amplifier 6.

Please replace the paragraph on page 29, line 21, with the following paragraph:

From FIGS. ~~6(a)~~ 6A to ~~6(c)~~ 6C, in the case of the example in FIG. ~~6(a)~~ 6A, the electrocardiographic complex appeared clearly, and a potential signal could be detected most stably. On the other hand, in the comparative examples in FIGS. ~~6(b)~~ 6B and ~~6(c)~~ 6C, noise was mixed in the electrocardiographic complex, and the electrocardiographic complex was unclear and was difficult to use.